Gulf of Mexico Harmful Algal Bloom Bulletin

27 December 2004

National Ocean Service

National Environmental Satellite, Data, and Information Service

Last bulletin: December 22, 2004

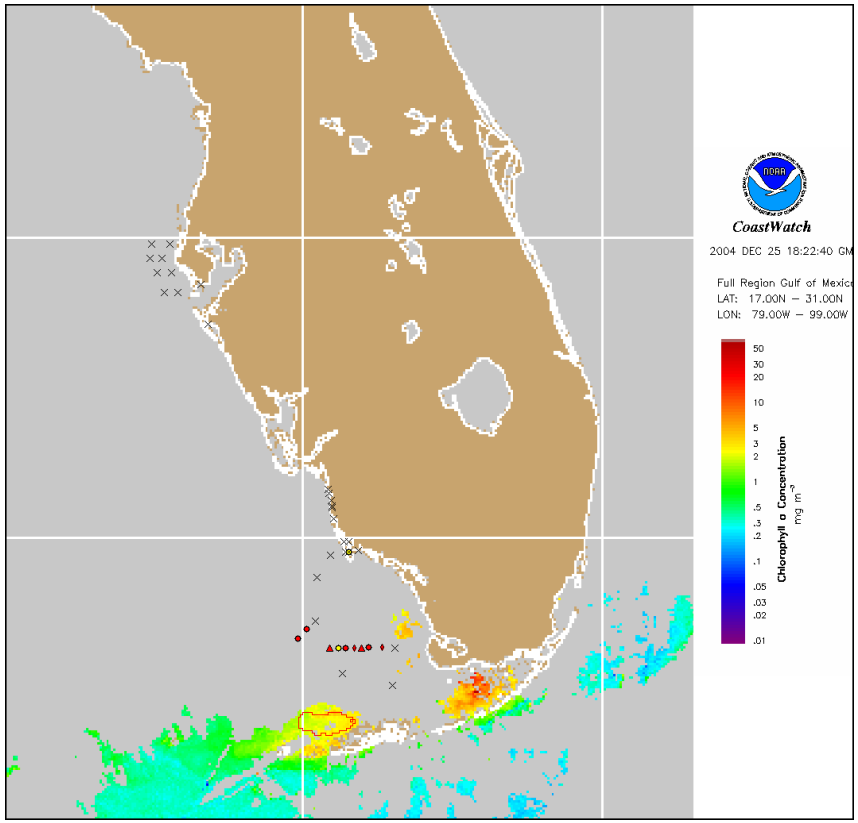
Conditions: A harmful algal bloom has been identified north of the lower Keys and northeast of Key West. Moderate impacts at the beach are likely, as well as some water discoloration.

Analysis: The harmful algal bloom located north of the lower Keys persists and has moved south. Clouds have obscured the imagery since Wednesday, making determination of the current extent difficult. Chlorophyll levels above 3μg/L were detected where possible between clouds north of Key West on Saturday, December 25. A medium concentration of Karenia was identified by Mote Marine Laboratory approximately 10 miles north of Big Pine Key on December 22 (24°56.5'N 81°29.2'W), as well as lower levels to the west. Medium concentrations of Rhizosolenia were also present in this area. Water may be discolored on the Gulf side of the lower Keys, primarily to the west of Marathon. Strong northeasterlies and easterlies, as well as choppy surf, throughout the week make moderate impacts onshore likely through Thursday. The bloom will continue to move southwest throughout the week.

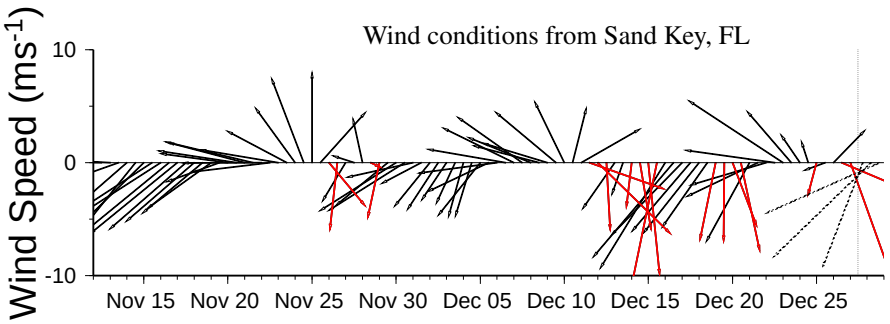
Imagery has been too cloudy to determine the current extent of the large feature located off of Cedar Key reported in the December 22 bulletin. Sampling at Cedar Key and Clearwater indicated that Karenia brevis was not present.

No Karenia was found in Sarasota or from Fort Myers to Marco Island.

-Stolz, Bronder

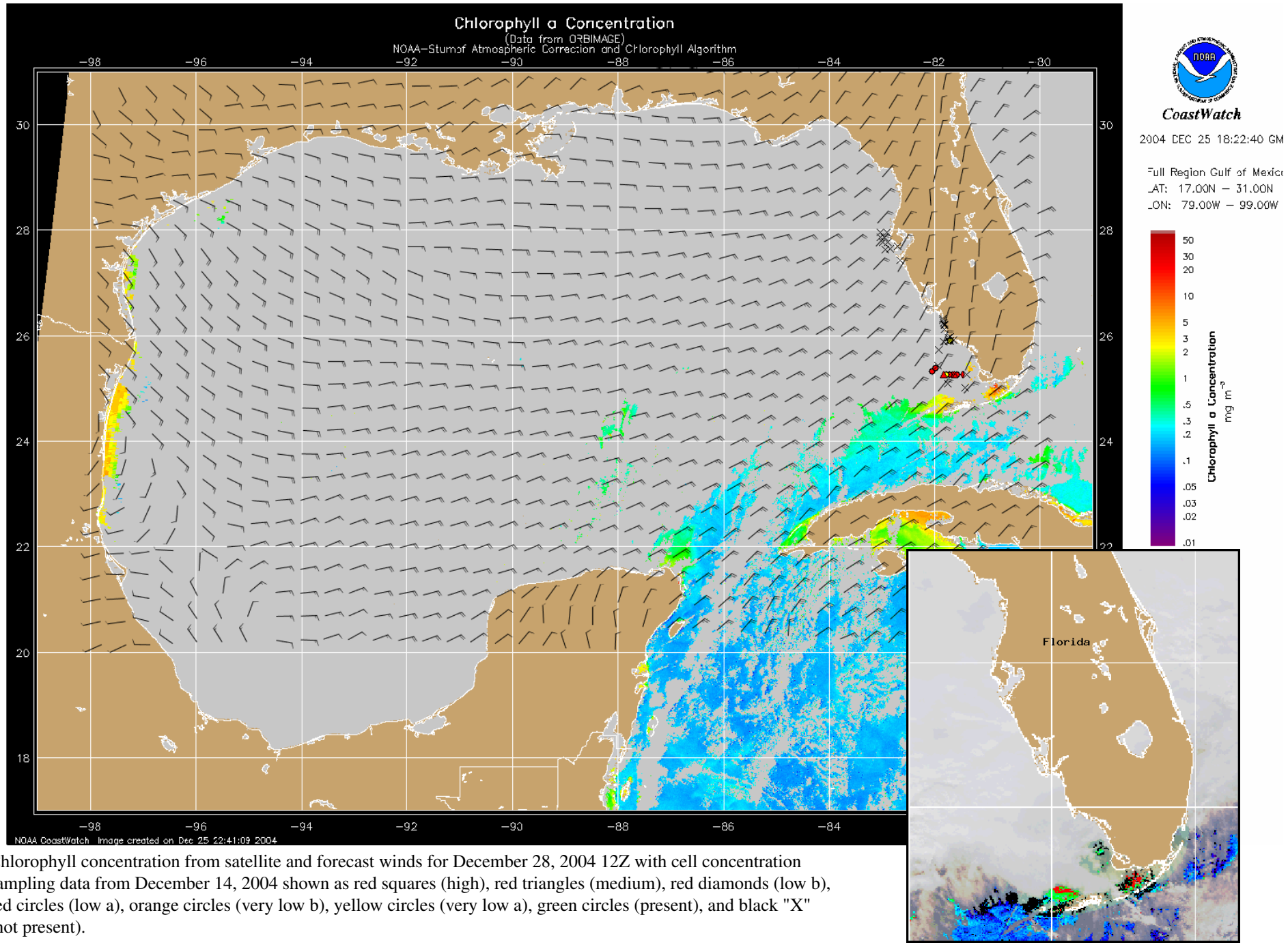


Chlorophyll concentration from satellite with possible HAB areas shown by red polygon(s). Cell concentration sampling data from December 14, 2004 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).



Wind speed and direction are averaged over 12 hours from measurements made on buoys. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.

20 knot (10 m/s) northerlies to northeasterlies expected today. 20-25 knot (10-13 m/s) northeasterlies through Wednesday, varying between northeasterly and easterly throughout Thursday and Friday.



Chlorophyll concentration from satellite and forecast winds for December 28, 2004 12Z with cell concentration sampling data from December 14, 2004 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).

Blooms shown in red (see p. 1 analysis and image for interpretation)